

# WEAPONS OF MASS DESTRUCTION

## BACKGROUND

### 1. Define WMD.

The modern era of industrialization transformed not only daily life, but also military technology. The global wars of the 20th century showcases for the newest and latest technology, built to cause the most destruction and hurt the most people. Weaponry of this caliber are known as weapons of mass destruction (WMD) because they are built to not only hurt the enemy, but to destroy as many facets of life as possible. Before the 20th century, the technology did not exist to cause damage on this scale and therefore WMDs did not exist. However, warfare was plenty brutal before global wars left their mark on the world.

Humans have fought as long as humans have walked on this Earth. Early civilizations, such as Mesopotamia and Egypt, developed weapons built to cause harm such as bows and arrows, slings, and spears. Chariots were the first mode of transportation used as a weapon by ancient peoples. The Hittites used chariots to crash into enemies, whereas the Egyptians used them to stay away and attack from afar using bows and arrows. By the Bronze Age as far back as 4500 BCE, improved metallurgy allowed for stronger spears, axes, and defensive material such as helmets. By 600 BCE, cavalry replaced chariots as the premier military transportation. The Ancient Greeks developed "Greek Fire", which was an incendiary weapon used to burn ships while floating on the water. The Romans also helped to improve military technology both offensively and defensively with strong armor, spears, swords, and catapults.

### 2. How was gun powder originally used?

During the Middle Ages, advancements to axes and spears continued, as well as to armor. From about 1000 CE, the Chinese began using gunpowder, but in those days, it was used more as firecrackers that would scare the enemy or be attached to spears to give it a boost. Meanwhile, the Mongols were crafting and revolutionizing the art of siege warfare, where enemies would be surprised and captured. The advancement of the longbow in the 14th century changed warfare as it allowed arrows to be shot five times faster. By the 15th and 16th centuries, guns and cannons were introduced to warfare and were responsible for bringing down massive cities, such as Constantinople. Wars of the 17th, 18th, and 19th century were fought and won using advancements in firearms, such as rifles, and advancements in transportations, such as steam engines. The U.S. Civil War was won by the North partly because of its Industrial capacity in churning out advanced weaponry faster than the enemy in the South.

## CAUSES & DEVELOPMENTS

### 3. What was different about warfare in the 20th century?

By the 20th century, war had completely changed. It was no longer about killing the enemy in front of you, but instead, finding ways to hurt the most people and cause the most destruction while using the least amount of time and resources. Military technological advancements in the First World War included machine guns, tanks, artillery, grenades, and poison gas. World War I was fought using old tactics, such as lining up on a front line and charging the enemy, but with new weapons such as the machine gun, soldiers were completely cut down and the war remained at a halt for years, without either side advancing very far. Further, the poison gas created a devastating effect where it was used because it could kill soldiers (on both sides on account of the wind) without using much force. The U-Boat, or German submarine, was also introduced in WWI and was used to attack ships throughout the seas. This was also the first time air warfare was used, although it was still very much in its early stages during this war. These weapons made horses and calvary obsolete and completely unusable in war.



In World War II, advancements in weaponry included more precise and reliable firearms and machine guns, tanks that were nearly indestructible, aircraft that could carry an unprecedented amount of bombs, GPS systems that allowed these aircraft to drop bombs and missiles on precise locations, and

**4. What is chemical warfare?**

advanced ships and submarines. The technology developed for WWII allowed entire cities to be flattened in a matter of seconds. It allowed thousands of soldiers to be cut down while storming the beaches through the continued use of machine guns and aircraft missiles. Further, serious advancements were made in chemical warfare that were also used on civilians. For instance, Hitler used Zyklon-B in concentration camps, which would gas and kill hundreds of Jews at a time, thousands a day.

**5. What was the goal of the Manhattan Project?**

While these technological advancements of WWII could all be considered weapons of mass destruction because they killed millions throughout the war, the ultimate weapon was developed and used to end the war in 1945. The U.S. was the first to develop the atomic bomb, a bomb so strong that just one would completely wipe out life for miles in a matter of seconds. The atomic bomb was developed by scientists and researchers part of the Manhattan Project, an effort funded by the U.S. government to develop the most destructive weapon known to man, one that could end the war in seconds. While Hitler continued to bombard cities with bomb raids, the Manhattan Project worked to develop a weapon so strong that it would be unmatched by the Axis powers.

**6. What happened at Hiroshima and Nagasaki?**

Although Hitler had already surrendered by the time the atomic bomb was ready, the bomb was used to stop the war with Japan. The U.S. first dropped an atomic bomb on Hiroshima, killing upwards of 150,000 people in seconds. Still, the Japanese did not surrender, so a second bomb was dropped on Nagasaki killing 80,000 in seconds. Then, Japan surrendered, effectively ending WWII.



The introduction of atomic bombs completely changed the not only warfare, but also international relations and diplomacy. By the 1950s, both superpowers of the world, the U.S. and the Soviet Union, had developed atomic weapons and thus introducing a policy of mutually assured destruction, where if one side uses the weapons, the world will most likely be destroyed. Cold War foreign policy was characterized by these weapons of mass destructions.

**PROCESS & EVENTS**

**7. Define “sphere of influence”.**

By the end of WWII, the Soviet Union was determined to establish a sphere of influence in Europe and a buffer against future aggressors. The Soviet Union (USSR) had the highest number of casualties during the war, so it was determined to prevent future catastrophes. Stalin, the Soviet leader, proceeded to install Communist and pro-Soviet governments throughout Eastern Europe. This expansion, in defiance of earlier agreements, angered the USSR’s wartime allies, Britain and the USA, and their relations with the Soviet Union sharply declined. This marked the beginning of the Cold War, which is the state of non-violent conflict between the Soviet Union and the USA and their respective allies that would continue from 1945-1991.

**8. What was the goal of Truman’s “containment policy”?**

In 1947, US President Harry Truman developed his “containment policy”, offering financial and military help to non-Communist European states in order to resist, or contain, Communist expansion. In April of 1949, the nuclear arms race began when the Soviet Union tested an atomic bomb. This meant that the US was no longer the only nuclear-armed nation. The doctrine of Mutually Assured Destruction explained that if something were to trigger war, both sides would be destroyed since both sides now had nuclear weapons.

Cold War clashes began in 1949, as the Soviet troops set up a blockade around West Berlin, which was controlled by the Western Allies, but Berlin itself was located within Soviet territory. The blockade prevented resources from getting to the people of West Berlin in the hopes the Allies would abandon it. President Truman responded with the Berlin Airlift, which supplied West Berliners with food and fuel by dropping it from the air. This is an example of Cold War because it involves conflict, but no one is actually fighting.

**9. What is the difference between cold and hot war?**

During the Cold War, there were examples of “hot war” against Communism, which is when fighting actually does occur. In June of 1950, the Communist state of North Korea invaded South Korea. The

United Nations (UN), an organization set up after World War II to promote world peace, voted to send a US-led force to help South Korea. Communist forces were eventually driven back to the 38th parallel by 1953.

**10. What is a nuclear arms race?**



The nuclear arms race continued throughout the 1950s. The US tested its first hydrogen bomb in 1952, which is even more powerful than the atomic bomb, followed by the USSR in 1955. Two years later, the Soviets tested an intercontinental ballistic missile — a missile that can be fired from one

continent and hit another continent and made an attack from the USSR on American cities a real possibility. By 1958, both sides had achieved a balance of terror.

**11. Why was the discovery of missiles in Cuba such a big deal?**

In 1960, things began to heat up when an American U-2 spy plane was shot down over the USSR, considerably raising hostility between the superpowers. The Soviets were upset that the US was spying on them and the US was upset that the Soviets shot down their plane. Meanwhile, the US was growing concerned about the increasingly friendly relations between the Cuban government Fidel Castro and the Soviet Union. In October 1962, the US discovered Soviet missile basis on Cuba, which sits just 90 miles south of Miami, Florida.

President John F. Kennedy demanded the removal of the missiles and set up a naval blockade of the island, so nothing could get in. The Cuban Missile Crisis was the closest the superpowers ever came to an all out war. After a week of talks, Khrushchev, the Soviet leader, agreed to withdraw the missiles in exchange for the removal of US missiles from Turkey.

**12. Define détente.**

in the 1970s, the Cold War entered another period of thaw, known as détente. American and Soviet leaders signed arms limitation treaties in attempts to stop the hugely expensive and destabilizing nuclear arms race. These treaties aimed to limit how many missiles and bombs each country could have. The decade of the 70s was relatively calm, with both sides in agreement of these diplomatic measures. However, the Soviet invasion of Afghanistan ended the period of détente. In the early 1980s, the US embarked on a massive build-up of nuclear weapons and on defense strategies including Reagan’s experimental Strategic Defense Initiative, dubbed Star Wars, that would allow the US to shoot down missiles in mid-flight.

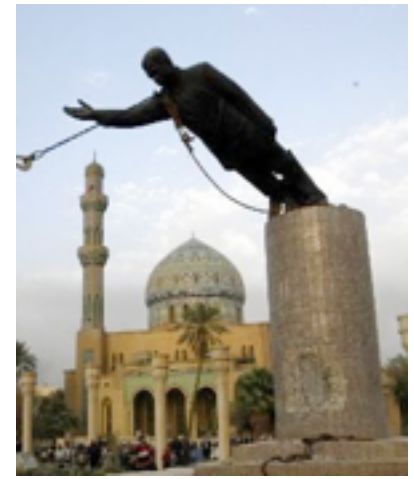
**13. Why was the USSR in decline during the 80s?**

The war in Afghanistan, which lasted 9 years, was an economical nightmare for the Soviets. The Soviets could barely afford to keep their population healthy and working, let alone compete in an arms race with the US, which had a strong economy. Knowing that the USSR was in decline, President Reagan began talks with Gorbachev, the Soviet leader, and eventually agreed to a sharp reduction of nuclear weapons. Gorbachev also implemented policies of economic openness and allowed the media in the Soviet Union to have more freedoms. In 1989, the border controls were relaxed and the hated Berlin wall was torn down. Over the next few years, Communist governments across Europe collapsed and countries gained their independence. The Cold War was over.

Although the tension between the US and the former Soviet Union ended, nuclear weapons did not disappear and therefore, the issue of weapons of mass destruction remains. The fifth President of Iraq, Saddam Hussein, was internationally condemned for his use of chemical weapons during the 1980s against Iranian and Kurdish civilians during and after the Iran-Iraq War. In the 1980s, Saddam pursued an extensive biological weapons program and a nuclear weapons program, although no nuclear bomb was built.

**14. What was the motive of the 2003 US invasion of Iraq?**

After the Persian Gulf War of the early 1990s, the United Nations located and destroyed large quantities of chemical weapons and related equipment. The West continued to view Saddam as a major threat to political stability in the Middle East; particularly as intelligence reports indicated that he was developing weapons of mass destruction. In 2003, Saddam's regime was overthrown by a US-led invasion of Iraq. Saddam was captured, tried and convicted of charges related to the 1982 killing of 148 Iraqis, and was hanged in 2006.



**15. Define insurgency.**

Although the US invasion was under the assumption that Saddam had WMDs, it became clear once the invasion took place that Saddam had no WMDs. The US invasion angered many in the Arab world because it was seen as another example of Western Imperialism, where the west steps in and controls governments abroad. In the chaotic aftermath of the conflict, the US-led coalition forces struggled to contain a powerful insurgency, or active revolt, made up of Iraqis and foreign al-Qaeda forces (the same forces the US supported during the Soviet invasion of Afghanistan).

**EFFECTS & RESULTS**

**16. Who has nuclear weapons today?**

Weapons of Mass Destruction were created during times of war with the intention of stopping the war, thus preventing the deaths of millions more. Its use during the war may have prevented the war from continuing for many months or years, which would have led to the deaths of millions of more civilians and combatants. On the other hand, the development and use of the atomic bomb triggered a nightmare of foreign relations, countless conflicts, and has led to the development of even stronger weapons, including chemical, biological, and radiological weapons. Today, there are eight countries who publicly possess nuclear weapons — China, France, India, North Korea, Pakistan, Russia, the United Kingdom, and the United States.